Consolidated NMOS
Transition Plan Overview

Presented to
Mission Operations & Data Systems Directorate

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Agenda

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- Purpose
- Work Authorization Mechanisms
- Roles and Responsibilities
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- Phase-in Tools and Resources
- Phase-in Questions
- SLAs
- GSAs
- TDAC SLA/GSAs
- Example of Specific Roles for Code 510

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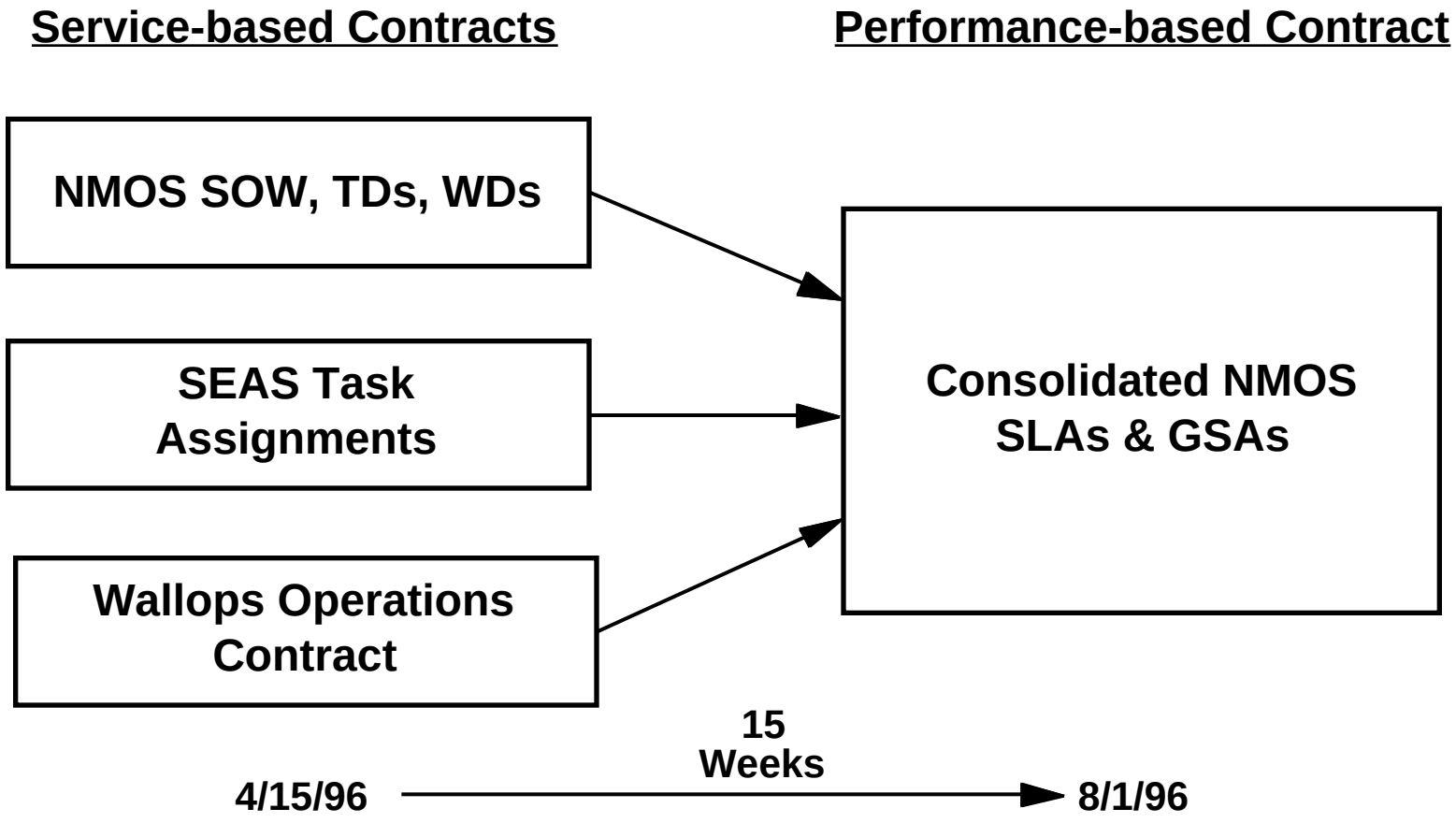
Contracts Consolidation



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Purpose

To provide a high-level summary of the Consolidated NMOS Master Transition Work Plan.

To access the Master Transition Work Plan, the Master Schedule, and this presentation on the WEB:

http://caster.gsfc.nasa.gov/CNMOS

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Work Authorization Mechanisms - 1

- All work performed under the consolidated NMOS contract shall be assigned or amended by NASA Technical Area Owners using the NMOS contract technical directive (TD) mechanism for work within the scope of the NMOS Statement of Work.
- The work will be packaged into Service Level Agreements (SLAs) and General Support Agreements (GSAs). Each SLA and GSA has a government Technical Area Owner and a contractor Technical Area Manager.
- The Technical Area Owner will determine the distribution of assigned work between the SLAs and GSAs.

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Work Authorization Mechanisms - 2

Service Level Agreements (SLAs)

- An SLA identifies services and products to be delivered, specifies a schedule for the services and products, defines metrics to be used to assess the performance of the SLA, and, following negotiations with the contractor, specifies a target price for the services and products.
- An SLA is used to identify and package work on the contract when the requirements, products and services, and schedule are well-defined, the work is to be performed entirely by the contractor, and performance can be evaluated through the defined metrics.
- An SLA may consist of a series of “mini-SLAs”, such as for a series of related missions. In such cases, the definition of a mini-SLA is the same as an SLA.
- An example of an SLA is the ISTP series of missions. An example of a mini-SLA within the ISTP family is the Cluster mission.

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Work Authorization Mechanisms - 3

General Support Agreements (GSAs)

- A GSA identifies services and products to be delivered, specifies a schedule for the services and products, and, following negotiations between the government and the contractor, specifies a target price for the services and products.
- A GSA is used to identify and package work on the contract when the requirements, products, or services are not well-defined, the work is to be performed by the contractor in collaboration with NASA or another contractor, or performance cannot be evaluated through defined metrics.
- Examples of a GSA are efforts in support of the HST Vision 2000 and efforts in support of the Software Engineering Laboratory.

Roles and Responsibilities - 1

Consolidation Teams

- **Program Management Team - provides high-level oversight of entire consolidation process.**
- **Operations Transition Team - defines roles, responsibilities, phase-in process.**
- **Scope of Work Team - identifies Service Level Agreements, General Support Agreements, Project Work Breakdown Structure.**
- **Communications Team - provides orientation and training.**

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Roles and Responsibilities - 2

Program Management Team (PMT)

- **Co-chaired by NASA and the Consolidated NMOS team.**
- **Consists of senior management from NASA, AlliedSignal, and CSC.**
- **Provides oversight to the entire consolidation process.**
- **Provides final authority for all phase-in activities.**
- **Approves Transition Work Plan and Technical Area Owners and Managers.**
- **Authorizes transition work plan activities to begin for each SLA/GSA.**
- **Resolves transition issues and provides transition guidance and advice.**
- **Approves completed Phase-in Work Package presented for an SLA/GSA.**
- **Provides approval at SLA/GSA Operational Readiness Review (SORR).**
- **Authorizes SLA/GSA to commence consolidated operations.**
- **After transition, a subset of the PMT becomes the Change Review Board.**

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Roles and Responsibilities - 3

Change Review Board

- Consists of a subset of the PMT.
- Holds no responsibility during the phase-in period.
- Approves work assigned to the contract.
- Approves changes to work assigned to the contract.
- Approves major baseline cost issues.

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Roles and Responsibilities - 4

Technical Area Owner (TAO)

- A NASA manager who serves as the Government's point of contact for mission and policy matters for SLAs and GSAs and raises unresolved issues to the PMT/CRB.
- During Transition
  - Prepares mission requirements, spacecraft tradeoff studies, operations concept.
  - With the Technical Area Manager, defines the contents of SLAs and GSAs.
  - Issues SLAs and GSAs to the contractor through the PMT via C.O.
  - With the Technical Area Manager, selects SLA /GSA Implementation Teams (SITs) to assist in planning the SLA/ GSA work.
  - Co-chairs the SLA/GSA Readiness Review (SRR).
  - Participates in the presentation of SLA/GSA Operational Readiness Review (SORR) to the PMT.
  - Approves TDs related to SLAs and GSAs via C.O.

Roles and Responsibilities - 4 (Cont)

Technical Area Owner (TAO) (Cont)

- **After Transition**
  - **Provides overall management of SLAs and GSAs, including budget, schedule, operational performance rating, and evaluation of operational performance, reviews, and reports.**
  - **Approves and issues all modifications to SLAs and GSAs as approved by the C.O.**

Roles and Responsibilities - 5

Technical Area Manager (TAM)

- A contractor manager who serves as the point of contact for the SLA/GSA.
- During Transition
  - With the Technical Area Owner, defines the contents of the SLA/GSA.
  - Selects and co-leads the SIT with the Technical Area Owner.
  - Performs all the planning work described in the Master Transition Work Plan.
  - Presents the SRR to his/her manager and the Technical Area Owner.
  - Obtains and trains the correct staff and skill mix to execute the SLA/GSA plans.
  - Presents SORR to PMT.
- After Transition
  - Manages the approved SLA/GSA work plans in accordance with the negotiated price.

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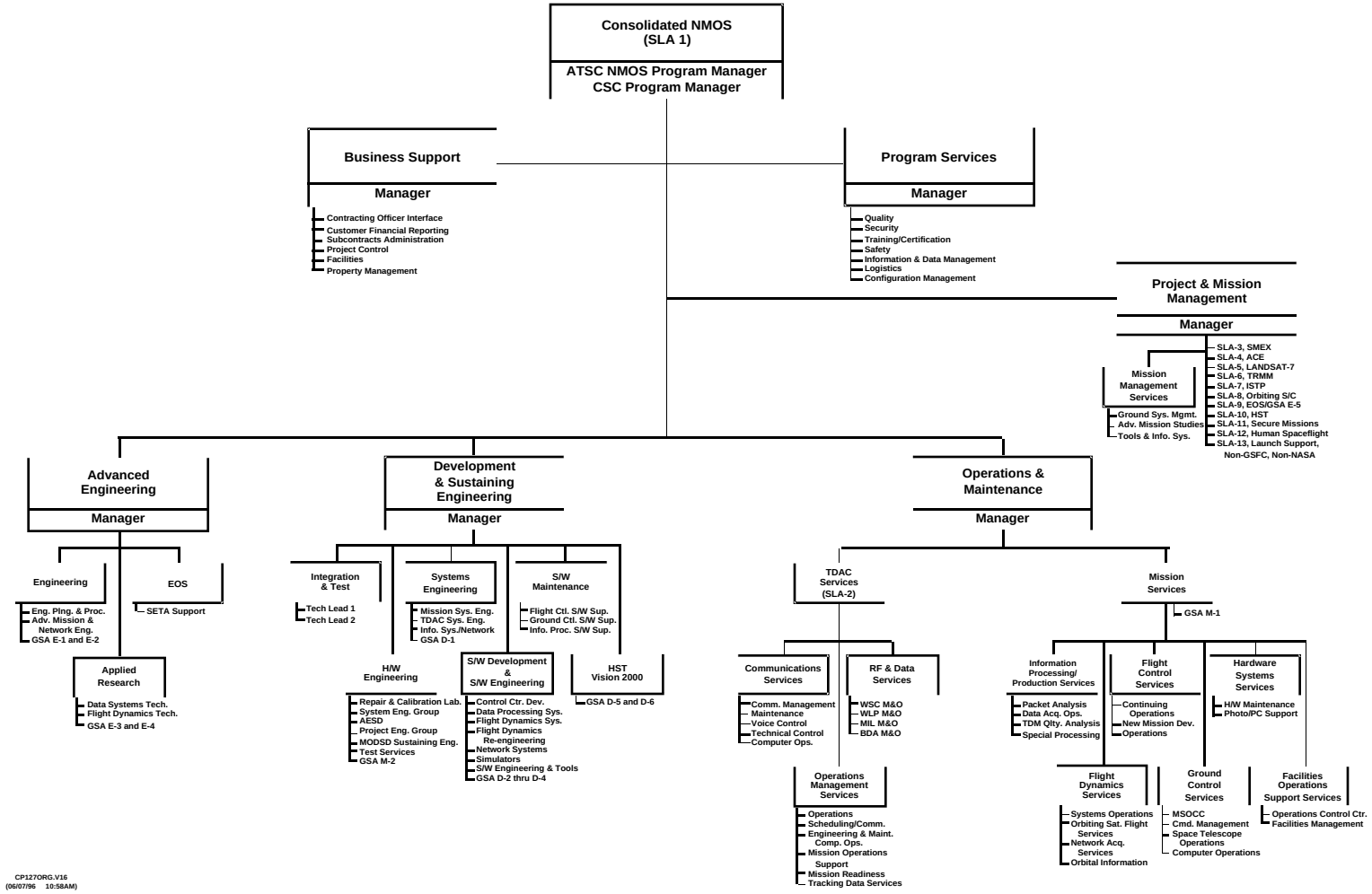
Roles and Responsibilities - 6

SLA/GSA Implementation Team (SIT)

- Consists of selected technical and management specialists (contractors and civil servants) chosen and led by the Technical Area Owner and Manager.
- Develops the detailed phase-in work plans.
- When consolidated operations are authorized by the PMT, a subset of the SIT becomes the Consolidated NMOS work team for the SLA/GSA.

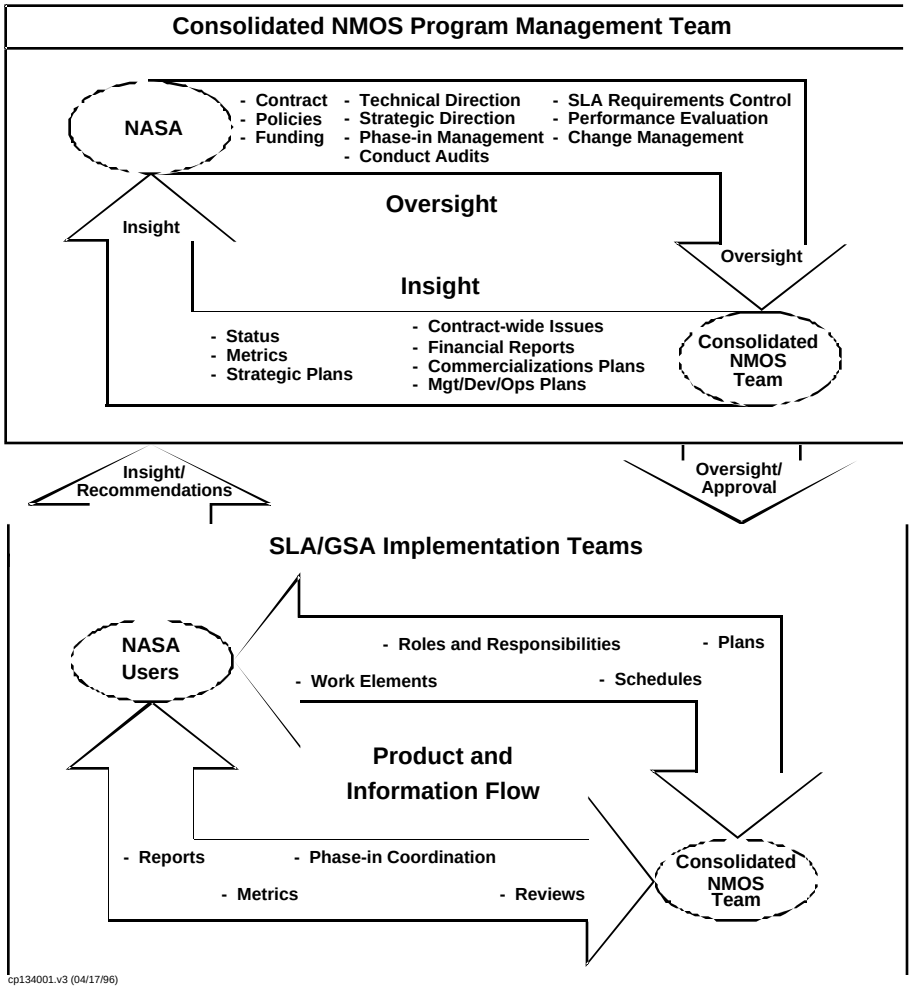
Consolidated NMOS Roles and Responsibilities - 7

Consolidated NMOS Organization



Consolidated NMOS Roles and Responsibilities - 8

Interfaces and Relationships



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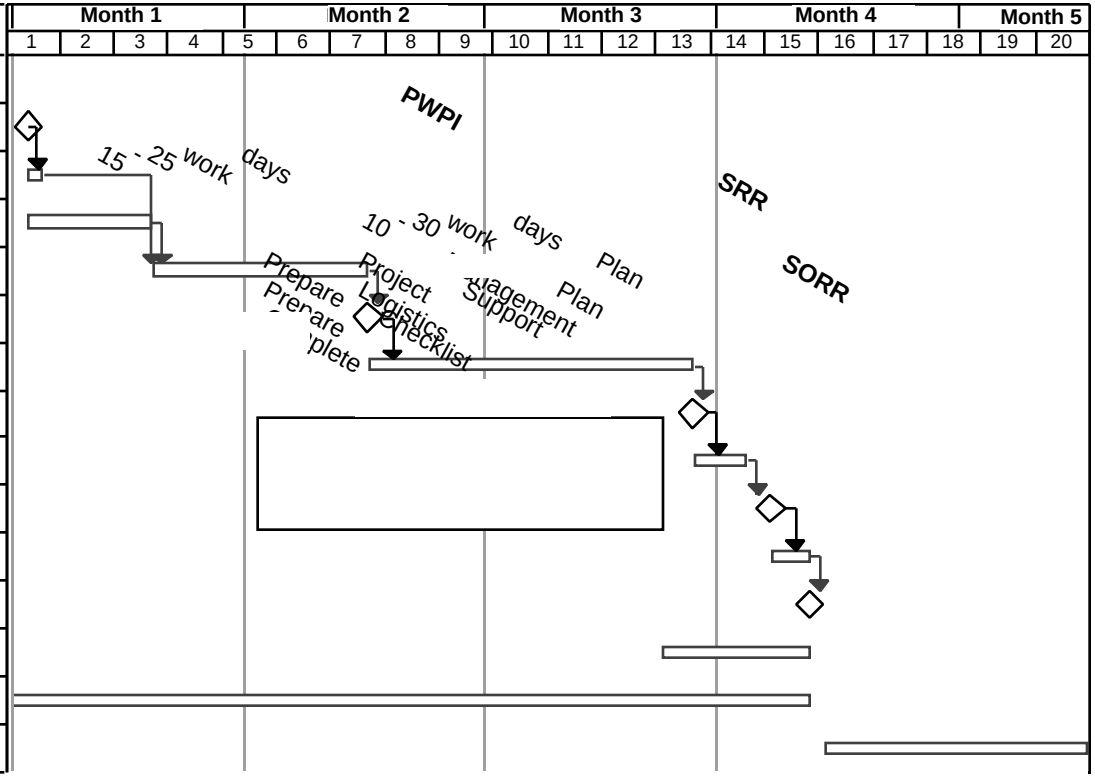
Generic SLA/GSA Phase-in Schedule

ID	Task Name
1	**GENERIC SLA/GSA**
2	Identify Owner and Manager
3	Establish SLA/GSA Implementation Team
4	Map Cost Centers/Tasks to SLA/GSA
5	Write SLA/GSA
6	SLA/GSA Phase-in Work Package Initiation
7	Prepare Phase-in Work Package
8	SLA/GSA Readiness Review
9	Determine SLA/GSA Price
10	SLA/GSA Operational Readiness Review
11	PMT Final Decisions
12	Consolidated Operations Authorized
13	Coordinate Phase-in w/Current Work Team
14	Continue current contract performance
15	Perform work in consolidated environment



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General Transition Activities

Activity	Responsible	Review/Approve
Continue current contract performance	Current work team	Current Management
Identify SLA/GSA list	Scope of Work Team	PMT
Identify Technical Area Owners & Managers	PMT	None
Select SIT members	TAO and TAM	None
Map tasks/cost centers to SLAs/GSAs	Operations Transition Team	PMT
Draft first two SLAs and Mission Model SLA	Scope of Work Team	PMT
Draft remaining SLAs and GSAs	TAO and TAM	PMT
Refine work mapping to SLAs/GSAs	Operations Transition Team	PMT
Develop phase-in work package	TAM	TAO and TAM
Conduct SLA/GSA Readiness Review (SRR)	TAM	TAO and TAM's Manager
Conduct SLA Operational Readiness Review	TAO and TAM	PMT
Coordinate Phase-in with Current Work Team	TAO and TAM	PMT
Begin Consolidated SLA Operations	TAO and TAM	None

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Key Phase-in Milestones

- Pre Phase-in Initiation.
- Phase-in Work Package Initiation (PWPI).
- SLA/GSA Readiness Review (SRR).
- SLA/GSA Operational Readiness Review (SORR).
- SLA/GSA Consolidated Operations Authorized.

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Key Phase-in Milestones - 1

Pre Phase-in Initiation

- Technical Area Owner and Manager Chosen.
- Current Work Mapped to SLA/GSA.
- SLA/GSA Written.
- SIT established by Owner and Manager.
- Master Transition Work Plan Approved by PMT.

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Key Phase-in Milestones - 2

Phase-in Work Package Initiation

- Consolidated NMOS Program Management Office (NPMO) receives SLA/GSA from NASA.
- NPMO issues SLA/GSA Authorization Order with:
  - Copy of Master Transition Work Plan.
  - SLA/GSA transition schedule.
  - Copy of task/cost center-to-SLA/GSA work map.
  - New cost center identification(s).

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Phase-in Work Package (PWP)

- A set of documented activities that must be completed in order to successfully begin performing consolidated work under the NMOS contract.
- Compiled by the Technical Area Owner, Manager, and SIT; reviewed and approved by NMOS management and the Technical Area Owner; and finally approved by the PMT.
- The minimum components of a PWP are:
  - Copy of the SLA or GSA to be implemented.
  - SLA/GSA Authorization Order for phase-in activities.
  - Summary description of the overall SLA/GSA phase-in approach.
  - Project Management Plan for the SLA/GSA.
  - Logistics Support Plan.
  - Completed SLA/GSA Phase-in Checklist.

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Key Phase-in Milestones - 3

SLA/GSA Readiness Review (SRR)

- Conducted 20-30 working days after PWPI.
- Presented by the Technical Area Manager and SIT to the Technical Area Owner and the Manager's manager.
- Minimum Review Requirements:
  - Summary description of overall SLA/GSA PWP.
  - Details of all aspects of Project Management Plan.
  - Details of all aspects of Logistics Support Plan.
  - Phase-in Checklist.
  - Basis of Estimate.

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Key Phase-in Milestones - 4

SLA/GSA Operational Readiness Review (SORR)

- **Conducted 5 working days after the SRR.**
- **Presented by the Technical Area Owner and Manager to the PMT.**
- **Presents a high-level summary of all SRR material (material given to PMT 48 hours in advance).**
- **Highlights all outstanding significant issues.**
- **Presents SLA/GSA price for approval.**

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Key Phase-in Milestones - 5

SLA/GSA Consolidated Operations Authorized

- Within 5 working days, receive PMT approval of the SLA/GSA price, and direction to proceed.
- Technical Area Owner and Manager initiate SLA/GSA consolidated operations.

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Phase-in Tools and Resources

- Master Transition Work Plan, with Master Phase-in Schedules.
- Phase-in Work Package
  - Project Management Plan template.
  - Logistics Support Plan template.
  - Phase-in Checklist.
- Mission Model SLA.
- Automated Project Management tools for TAMs
  - PLANET, TMIS, Word templates, Project.
- Scope of Work, Operations Transition, Communications teams.
- Any person with subject matter expertise.

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Phase-in Questions

- **Three vehicles for submitting questions regarding Consolidated NMOS Phase-in:**
  - **Consolidated NMOS E-Mail Question/Suggestion Box.**
  - **Consolidated NMOS TMIS User Forum (Lotus Notes).**
  - **Consolidated NMOS Questions Form should be sent to:**
    - **B.J. Hayden - NASA/GSFC/Code 532.2**
    - **Janis Stengle - ATSC/GCP A1D28**
    - **Michele Bissonette - CSC/Green Tec II/21A**
- **Questions will be addressed by the appropriate Joint NASA/ Contractor Team.**

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Service Level Agreements

Number	Title	SLA Owner	SLA Leader
1.0	Management	Tagler	Friedman
2.0	TDA & C	Watson (Butler/Currier)	Schenk (A)
3.0	ACE	Snow	Nicotra
4.0	SMEX	Catena	Nicotra
5.0	LANDSAT 7	Menrad	Samii
6.0	TRMM	Schauer	Szakal
7.0	ISTP	Oxenham (Walls)	Hines (A)
8.0	Orbital Satellites	Oxenham (Walls)	Richardson (A)
9.0	EOS	Herring	Shanklin
10.0	HST Operations	Pfarr	Miller (A)
11.0	Special Projects and Missions	McCullough, Flaherty	Wong
12.0	Human Spaceflight	Morse, Stelmaszek	Curley, Schneck (A)
13.0	Non-GSFC, Non-NASA	Joyce	Hunter (A)

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General Support Agreements

Number	Title	GSA Owner	GSA Leader
D 1	Communication System Engineering	Torain	Ingale
D 2	Flight Dynamics Re-Engineering Project	Weidow	Liu
D 3	Software Engineering	Pajerski	Abshire
D 4	NCC Project	Maione	Manion
D 5	HST Vision 2000	Spiegel	Spence
D 6	Flight Software	Shell	Chu
E 1	Technology Planning & Standards	Wilson	Mackey
E 2	Advanced Mission/Network Engineering	Meyers	Pendley
E 3	Data Systems Engineering	Speciale	Cyprych
E 4	Flight Dynamics Technology	Eiserike	Oza
E 5	EOS SETA	Herring	Branch
M 1	Operations	Valenti	Crouch (A)
M 2	SN Ground Segment Project	Herr	McGinley (A)
P 1	Mission Management Services	Joyce	Lutz

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Tracking & Data Acquisition & Communications

SLA #2 2.0	Tracking & Data Acquisition & Communications	B. Watson	H. Schenk (A)
2.1 2.2	Operations Management Spacecraft Operations	R. Flaherty B. Gioanini	V. Reamy (A) G. Rhoderick (A)
2.3	RF Tracking & Data Services Ground Network	 S. Currier	 K. Griffin (A)
 2.4	Space Network Communications	B. Gioanini T. Butler	G. Rhoderick (A) N. Vila (A)
Tracking & Data Acquisition & Communications Related GSAs			
GSA D-4	NCC Project	A. Maione	D. Manion
GSA M-2	SN Ground Segment Project (RF & Data Services)	D. Herr	D. McGinley (A)

(A) Acting

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Example of Specific Roles and Responsibilities for Code 510 Mission Directors

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Responsibilities That Do Not Change

- Civil Service
  - Ultimate responsibility, for NASA, for spacecraft health and safety.
  - Customer interface for requirements and requirements changes.
  - Direction of unplanned operations that impact mission requirements (e.g., spacecraft emergency, reboost, L&EO, maneuvers, eclipses).
  - Formation of anomaly teams.
  - Measurement of contractor performance.
  - Direction of flight software changes (selected spacecraft).
  - Insight into nominal ground and flight operations.
  - Decision on criticality and timing of CCRs--new requirement.
- Contractor
  - Direction of nominal operations (telemetry monitoring, spacecraft commanding, data processing and distribution, line configuration, reports).
  - Execution of non-nominal operations.
  - Flight Ops input into ground and flight system CCRs and problem resolution.
  - Execution of ground system changes.

Responsibilities That Change

- Formerly Civil Service
  - Decision on criticality of discrepancies.
  - Decision on implementation scheme for CCRs and discrepancies.
  - Control of ground system software and configuration changes.
  - Direction of facility changes and operations for hardware and software.
  - Facility scheduling.
- Contractor
  - Decision on criticality of discrepancies.
  - Decision on implementation scheme for CCRs and discrepancies.
  - Control of ground system software and configuration changes.
  - Direction of facility changes and operations for hardware and software.
  - Facility scheduling.

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Implications to SLAs

- Contractor assumes greater responsibility because most problems are not at level where they impact requirements and funding.
- Civil servant Mission Directors must have authority to carry out their responsibilities. In particular, they must have authority to make decisions about any activity that affects the spacecraft, if they believe the spacecraft could be in danger. They are designated this decision and direction authority by the SLA Owner.
- Implications (SLA must not preempt and GSA must allow):
  - Mission Directors must have intimate and regular understanding of all operations activities.
  - They must have ability to request and obtain information, direct quick turnaround analyses, call on contractors for response.
  - They must have authority to override contractor decisions if they believe the spacecraft is endangered.

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Questions and Answers